

## STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0074357; AI 19896; PER20090001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** Calcasieu Parish Police Jury  
Sewerage District No. 11 Wastewater Treatment Plant  
P.O. Box 16596  
Lake Charles, LA 70616
- II. PREPARED BY:** Afton J. Bessix
- DATE PREPARED:** June 23, 2009
- III. PERMIT ACTION:** reissue LPDES permit LA0074357, AI 19896; PER20090001
- LPDES application received: February 25, 2009
- EPA has not retained enforcement authority.
- LPDES permit issued: September 1, 2004  
LPDES permit expired: August 31, 2009

**IV. FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Mallard Junction area.
- B. The permit application does indicate the receipt of industrial wastewater. The industrial dischargers include:

<u>Name of Discharger</u>	<u>Flow</u>
K-Jon	**Pump out systems in Sewer District when called to do so**

- C. The facility is located at 300 Deshotel Lane in Lake Charles, Calcasieu Parish.
- D. The treatment facility consists of a low pressure collection system discharging into an aerated primary pond, then flows into a secondary pond, a marshland filter, and a rock reed filter. Disinfection is by ultraviolet light.

**E. Outfall 001**

Discharge Location:	Latitude 30° 15' 3" North Longitude 93° 8' 30" West
Description:	treated sanitary wastewater
Design Capacity:	0.3 MGD

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Type of Flow Measurement which the facility is currently using:  
 Continuous Recorder

**V. RECEIVING WATERS:**

The discharge is into the parish drainage ditch; thence into English Bayou; thence into the Calcasieu River in segment 030702 of the Calcasieu River Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 030702 of the Calcasieu River Basin are as indicated in the table below<sup>1/</sup>:

Overall Degree of Support for Segment 030702	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Full	Full	Not Supported	N/A	N/A	N/A	Full

<sup>1/</sup>The designated uses and degree of support for Segment 030702 of the Calcasieu River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

**VI. ENDANGERED SPECIES:**

The receiving waterbody, Subsegment 030702 of the Calcasieu River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

**VII. HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

**VIII. PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public

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hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Afton J. Bessix  
Water Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

**IX. PROPOSED PERMIT LIMITS:**

Subsegment 030702, English Bayou – Headwaters to Calcasieu River, is listed on LDEQ's Final 2006 303(d) list as impaired for mercury and total dissolved solids. Although TMDL's for the Calcasieu River Basin were due to be completed by 2001, a TMDL has not yet been developed for mercury and TDS for this waterbody. A TMDL will be scheduled following completion of the EPA Consent Decree TMDL schedule. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a future TMDL.

**Total Dissolved Solids (TDS)**

Based on the size and nature of the facility, the Department believes there is little potential for the discharge to cause or contribute to the TDS impairment of this segment. Therefore, no limitation for TDS will be required of this facility at this time.

**Organic Enrichment/Low DO and Nutrients** have been delisted as impairments due to data from TMDLs previously received from LDEQ and approved by the EPA.

**Mercury** has been delisted as an impairment since there is no fish advisory for this subsegment. A review of historical WQ data shows that this waterbody is currently meeting water quality standards for water column Hg.

Subsegment 030702 was previously listed as impaired for suspended solids/turbidity on past 303(d) lists, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 030702:

**TMDL for Suspended Solids and Turbidity for English Bayou in the Calcasieu River Basin**

As per the TMDL, point sources do not represent a source of TSS as defined in this TMDL. Wastewater treatment facilities discharge primarily organic TSS, which does not contribute to extensive habitat impairment resulting from sedimentation. Municipal permits contain a TSS limitation and a specific

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narrative requirement to prevent organic solids accumulation. Because an enforceable mechanism is in place to protect from discharges of organic suspended solids no TMDL is required for these materials.

**Final Effluent Limits:****OUTFALL 001**

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

<b>Effluent Characteristic</b>	<b>Monthly Avg. (lbs./day)</b>	<b>Monthly Avg.</b>	<b>Weekly Avg.</b>	<b>Basis</b>
CBOD <sub>5</sub>	25	10 mg/l	15 mg/l	Limits are set in accordance with Water Quality Based Limits Amended Advanced Treatment Review (ATR) for Calcasieu Sewer District #11 (ATR 89.16).
TSS	38	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	25	10 mg/l	20 mg/l	Limits are set in accordance with Water Quality Based Limits Amended Advanced Treatment Review (ATR) for Calcasieu Sewer District #11 (ATR 89.16).
Dissolved Oxygen	N/A	2 mg/l	N/A	Limits are set in accordance with Water Quality Based Limits Amended Advanced Treatment Review (ATR) for Calcasieu Sewer District #11 (ATR 89.16).

\*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD<sub>5</sub> and TSS in terms of concentration.

\*\*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

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**Other Effluent Limitations:****1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

**2) pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

**3) Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

**X. PREVIOUS PERMITS:**

**LPDES Permit No. LA0074357:** Issued: September 1, 2004  
Expired: August 31, 2009

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD <sub>5</sub>	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen	10 mg/l	20 mg/l	2/month	Grab
Dissolved Oxygen	2 minimum	---	2/month	Grab
Fecal Coliform Colonies	200	400	1/week	Grab
pH (standard units)	6.0 s.u.	9.0 s.u.	2/month	Grab

**XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:****A) Inspections**

A review of the files indicates the following inspection was performed during the period beginning November 2006 and ending December 2008 for this facility.

Date: October 24, 2007

Inspector: Greg Fruge, LDEQ

Findings and/or Violations:

1. A DMR review for the period of January 2005 to July 2007 revealed several exceedances.
2. A Lab report review revealed exceedances for the holding times of pH and Fecal Coliform.
3. Facility could not provide any calibration records for the flow meter.
4. A new flow meter was installed at or around March 2006.
5. Aerators were operating properly.
6. The effluent at the outfall had no color and no smell.
7. No apparent problems were observed at the oxidation ponds.

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**B) Compliance and/or Administrative Orders**

A review of the files indicates that no recent enforcement actions have been administered against this facility. However, a Notice of Deficiency was sent to the permittee dated November 26, 2007 referencing areas of concern for an inspection conducted on October 24, 2007. As of January 3, 2008, LDEQ determined that the areas of concern identified have been adequately addressed.

**C) DMR Review**

A review of the discharge monitoring reports for the period beginning November 2006 through December 2008 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
Flow	Outfall 001	November 2006	Report	---
Flow	Outfall 001	December 2006	Report	---
CBOD <sub>5</sub>	Outfall 001	December 2006	10 mg/L 15 mg/L	15.5 mg/L 16 mg/L
TSS	Outfall 001	December 2006	15 mg/L 23 mg/L	19 mg/L 26 mg/L
Fecal Coliform	Outfall 001	January 2007	200 col/100 mL 400 col/100 mL	275 col/100 mL 550 col/100 mL
CBOD <sub>5</sub>	Outfall 001	February 2007	10 mg/L	11 mg/L
CBOD <sub>5</sub>	Outfall 001	June 2007	10 mg/L 15 mg/L	16 mg/L 21 mg/L
TSS	Outfall 001	June 2007	38 lbs/day 15 mg/L 23 mg/L	42 lbs/day 30.5 mg/L 48 mg/L
TSS	Outfall 001	August 2007	15 mg/L 23 mg/L	21 mg/L 25 mg/L

**XII. ADDITIONAL INFORMATION:**

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

In accordance with LAC 33:IX.2903., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

- Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- Controls any pollutant not limited in the permit; or
- Requires reassessment due to change in 303(d) status of waterbody; or

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- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.3 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.3 \text{ MGD} \times 10 \text{ mg/l} = 25.02 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
CBOD <sub>5</sub>	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

<b>Audit Period Begins</b>	<b>Audit Period Ends</b>	<b>Audit Report Completion Date</b>
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

**XIII. TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

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**XIV. REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Calcasieu Parish Police Jury, Sewerage District No. 11 Wastewater Treatment Plan, February 25, 2009.